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account. This vast memory is only raw material. The divine gift is ever the instant life, which receives and uses and creates, and can well bury the old in the omnipotency with which Nature decomposes all her harvest for recomposition.

R. W. EMERSON.

ART. VIII. — BOSTON. II.

THREE months ago the more recent commercial record of Boston was criticised in the pages of this Review. It was then suggested that of late years that record was more characterized by spasm and flounder, resulting in settled decadence, than by any apparent study of natural laws and forces, or by systematic, well-sustained effort. The question was asked, How had that foreign steam commerce planted in Boston thirty years before flourished and increased? And it was answered, that twenty-five years ago Boston sent out to Liverpool her two Cunarders a month, and that she sent out her two Cunarders a month now. Events, however, moved rapidly. While that paper was passing through the press, — before the ink which told the story of the cessation of growth was dry, — a new illustration was afforded of the truth, that to rest is impossible, that movement is a necessity of existence, and that what does not grow does decay. The first of January, 1868, marked a new era for Boston in the history of her ocean steam navigation, and the withdrawal of the Cunard line of steamers from her waters furnished proof beyond controversy of the moral and material condition criticised in these pages. It is easier to criticise than to suggest, far easier to find fault with self-evident ills than to promote practical remedies. Recognizing the force of this truism, no attempt was made, in reviewing a record of the past filled with abortive schemes and rich in quack nostrums, to point out any special panacea, or any royal road to a renewed prosperity. The difficulty of that task was recognized as far transcending the utmost capacity of the critic, and it was simply suggested that the study of the laws ignored and the forces neglected might well task the strength of the best

ability Boston could furnish. That ability had for years been exerting itself with brilliant success in distant fields not tributary to Boston. Could it now be brought to bear, with all its accumulation of experience and capital, with all the confidence which past success must carry with it, to make possible the fulfilment of its recommendations, it was suggested that the causes of failure might be detected, and the proper remedy, if, indeed, any existed, might be applied.

The ability, experience, energy, and capital which did so much to build up Chicago, which have made the Boston-built railroads the incomparable lines of the West, which are now forcing forward the Pacific Central, and fulfilling contracts covering forty million dollars in the midst of the Rocky Mountains, seem no nearer a practical application to the ever-increasing difficulties of the home problem now than then. Yet the event of the first of January is a significant intimation that the problem will not await man's convenience for its solution. Since the best cannot be had, such as can be had may not prove wholly useless, and it is now proposed to deal with remedies, as in January with defects. As that paper in its tone was chiefly negative, this is meant to be positive; as then the recognized evil was presented, now such practical remedies as may suggest themselves will be discussed. Many conflicting propositions and results, derived from a study of almost innumerable figures and statistics, should enter into the proper consideration of such a problem, and be part of any reasonably probable solution. Much would be accessible to a public commission from which individual inquirers are debarred. Wielding all the influence of a community, having every source of information thrown open to them, such officials become the recipients of light from all quarters, and can, if they be competent, concentrate the scattered rays into a powerful focus. These advantages are not enjoyed by individual inquirers, and the results of their investigations must be proportionally less valuable. The object of the present article, therefore, is not to lay down the law, but to excite discussion. The solution of the problem which is offered is put forward rather with extreme deference than with any claim to infallibility. It is useless, however, even where the creation

of discussion is the only object, to advance timidly. Laws and forces must be spoken of as if established and universally recognized. The claim for consideration once entered must there be allowed to rest, while the subject itself is to be treated as though all the material which could go to make up the opinion of the ablest and most industrious commission were at the disposal of individuals.

What is it that Boston wants? What is this problem which forces itself more and more painfully upon her, and the solution of which she has sought through anguish and perturbation of spirit for twenty years? Evidently she wishes to recover a vanishing commercial prosperity; she does not wish to become a provincial, manufacturing town; she wishes to remain a centre, and not to be reduced to a satellite. Twenty years of effort, only less abortive than costly, have been directed to this end. Those schemes have mainly failed. The record of their failure may be read in the courts of insolvency, and in ledgers closed over a final dividend sadly meagre as compared with original outlay. Why have they so failed? Why have subscriptions to those enterprises been made by Boston merchants as a sort of duty of patriotism or charity, and not as an investment? The answer need not be sought far. For twenty years Boston has been, and, so far as those schemes are concerned, she now is, running counter to the laws of trade, — trying, in a word, to make water run up hill. That this is no idle statement will hereafter be more evident. It will be seen more and more that one inherent, absolute cause of failure has run through all those abortive schemes; that uniformly the impracticable has been attempted, or impossible fields of competition have been selected, or co-operation has been neglected, or the laws of trade in some way violated. The principle pursued has almost uniformly been to provide conveniences and commercial facilities — steamboats, wharves, and connecting railroads — for a trade which did not exist, but which was to appear on the creation of this machinery for it. The natural order of things has been reversed, — or rather its reversal has been attempted. The appliances have preceded the trade, and not the trade the appliances. Supply has preceded demand instead of succeeding it, and with the usual result. Those merchants

and men of property who for years past have been cajoled or threatened, in the name of patriotism or of city pride, into all sorts of enterprises, which their own judgments, at the time they subscribed their thousands, told them were foredoomed to failure, have simply been guilty of very foolish conduct. They have placed the cart before the horse, and then looked for locomotion. They have been trying to make water run up hill. All such schemes are futile, and such patriotic subscriptions worse than useless. They not only do no good, they do positive harm. Each failure not only sinks capital, but it destroys prestige, — not only prevents natural evils from working out their own remedy, but obscures insight into difficulties, and impairs confidence in natural remedies. Where, then, in future must a beginning be made? The answer may be given in the words of the character in Hamilton's fairy tale: "*Commençons par le commencement.*" Recourse must be had to elementary principles. The question, moreover, is as simple as one of hydraulics. Trade and commerce obey a law of gravitation of their own, just as much as water. In obedience to its law, water will always run down hill; and so trade, in obedience to laws which patient study will discover, will always flow down the steepest decline; and by the steepest decline is meant through the most convenient and cheapest outlet and inlet. If Boston is or can be placed at the foot of such a trade decline, and in just so far as she is placed there, trade will flow to her and through her just as naturally as water runs down hill. Until she is placed there, a costly system of pumping may force a weak driblet of the coveted stream into her channels; but the process will hardly, in the future any more than in the past, prove a financial success. The object to be attained, then, is as easily understood as the law of gravitation as illustrated in the natural flow of water. Stated in correct language, it is this, — to make Boston, as an out of and inlet for some existing demand of trade, as cheap and more convenient, or as convenient and cheaper, than any other geographical point. No scheme which does not on its face propose to do this is deserving of a moment's consideration; any scheme which does propose to do it may at least ask attentive consideration.

It is necessary to go over a good deal of ground to decide whether this can be done. In traversing that ground, the stranded wrecks, thick as dead leaves in autumn, of many notable schemes of the past will mark points to be avoided. In the first place, however, the subject requires division. Trade is liable to three distinct influences, all more or less within the control of man. These influences may be described as the geographical, over which human power exerts the least, though still a very decided influence, — the economical, under which head are included all those appliances and inventions by which cheapness or convenience, either natural or artificial, is obtained, and over which man has a more decided, though still not absolute, control, — finally, the legislative influence, over which his control is absolute. The geographical influences limiting and affecting the trade of Boston, existing or possible, are first to be dealt with.

This part of the problem, so far as oceanic trade is concerned, does not seem difficult of solution. Other things being equal, and as a simple port of export and import, (and the essential fact that she is not now, and probably will never again be, a great market, is hereafter to be considered,) Boston is sufficiently convenient to Liverpool, Northern Europe, and the Mediterranean. The remaining commerce of the seas may be left out of consideration. The one single fact necessary to be borne in mind is, that, for the Liverpool trade, for the European export and import trade, Boston is twenty-four hours nearer the foreign terminus than New York.

The geographical conditions, so far as the domestic or internal trade is concerned, are more intricate, and require more careful consideration. Regarded from Boston as a standpoint, the United States may best be considered as resolved into three trade sections or zones, — the southern or Gulf zone, the middle or railroad zone, and the northern or Lake zone. Lying as Boston does on a bleak projection of the coast, it might be supposed that the trade of the southern zone would have been abandoned by her to New York without a struggle. A glance at the map would show, that, to reach Boston, Southern trade must flow down hill as far as New York, and then up hill to its point of destination. The pro-

posal to bring it to Boston would seem to have been absurd. Yet a determination strongly possessed the Boston mind, compelling a struggle to compete where Nature proclaimed competition impossible, and no region, unless perhaps the lands famous for oil-wells and gold-mines, has been more profusely overspread with the wrecks of Boston enterprise than the Gulf zone. For years the Southern trade was a rallying cry in politics. To it were offered up human sacrifices under the shadow of Faneuil Hall, and great jurists bowed down and crept under chains into their court-rooms that Southern buyers might not abandon a market to which all the laws of trade made it impossible for them to come. Then, again, the patriotic subscription-lists went round, and facilities were afforded for a trade which did not and could not exist. Costly steamers ran to every Southern port, and ran at a loss, and projectors and subscribers savagely denounced that unpatriotic spirit which would select the cheapest routes to the most convenient markets, and they innocently wondered that their capital disappeared in spite of their strenuous efforts to make water run up hill. To these lines, where healthy trade had not called them into existence, the war gave the finishing stroke, and of some of them the last sad final dividends have even yet scarcely found their way into the pockets of the stockholders. The Gulf zone may, then, be left out of the question. In that field competition is impossible to Boston; the water will not run up hill.

Next comes the middle or railroad zone, extending north to the region drained by the St. Lawrence. Is competition for the trade of that great region possible for Boston? It is that region — the region drained by the great through railroads of Baltimore and Philadelphia, by the Erie Railroad and Canal, and by the New York Central — that Boston has for long years been contending for, in vain competition with New York. To compete in that region, she built her Western Railroad thirty years ago, is now striving to complete her Hartford and Erie, and is scooping out the bowels of the Hoosac Mountain. Successful competition there or commercial death is the traditional alternative in the Boston mind. But is competition there really possible? Must not trade, in the nature of things,

ascend an incline to get to Boston from that region as compared to New York, after it has once touched the Hudson? Twenty years of bitter experience should have made it evident that it must, to all who are not wilfully blind.

Fifty years ago De Witt Clinton looked at the whole country, and took in all the relations of its great features to the State and city of New York. Before his day "the commerce between the East and the West found its way up the Hudson River to Troy, and along the Mohawk, and, with a little help overland, down the Oswego River to Lake Ontario. Then it was conveyed in bateaux up the lake to Niagara Falls, — the great barrier Nature interposed between the upper and lower lakes. Then the back of the poor Indian came into use over the portage around the Falls, until the Lake Erie vessels took it from his shoulders." Seeing all this, Clinton, like a great and wise man, contented himself with assisting Nature in making water run down hill. He saw clearly enough that those great lakes must forever drain three hundred thousand square miles of territory, the most productive in the world. It needed an access to a market, and that only. He accepted the Falls of Niagara as a fixed fact, an insurmountable barrier. Lake navigation must stop at Buffalo, and to that point the whole region of the upper lakes must drain. From that point, therefore, he opened navigation to the Hudson, and emptied the trade of the Lakes into New York Harbor; and they are wise to-day who account "that trade as worth to New York more than all the gold of California." Could Boston hope to compete for that trade with the Hudson by means of a railroad over the Green Mountains? She apparently thought so. The whole Western railroad system of Massachusetts — that system on which it counted for its foreign trade and for the power of competition in the middle and Lake zones — was built to terminate at the Hudson. First, the Western Road, and more recently the Troy and Greenfield, and then the Hartford and Erie, all ran direct to that river. It did not seem to occur to their projectors, that, so far as foreign trade was concerned, where the Hudson begins there competition ends, and there it must end, as long as the Hudson flows to the sea. Water runs from the locks of the canals into the Hudson; and there locks cease to exist, and

the water flows freely down to New York, and to that point it carries trade untaxed. It does not flow over the Green Mountains, and cannot be made to do so. The whole of the Massachusetts railroad system, therefore, so far as competition in the central zone is concerned, is founded on a fallacy, — the fallacy that steam could run up hill cheaper than water could run down.

But in winter the canals and the Hudson are closed, and freight moves by rail. Still, however, at the Hudson competition ceases. The channels of trade are worn broad and deep to New York, — the great interior network of roads is owned by and runs to New York, — and in New York are the machinery, the facilities, and the ships. Trade cannot be diverted from its customary channels by slender influences. Evidence enough of these patent facts may be discovered by Bostonians, anxious to inform themselves, in the history and returns of the much abused Western Railroad. That road was expected to perform an impossibility, and has been roundly berated because it did not do it. Few will speak too well of the enterprise or management of that corporation, but still fewer recognize that the task assigned it was an impossible one. For itself, it long ago realized that rivers and mountains and miles of additional road were stubborn facts, and contentedly resigned itself to a course of local freights and ten per cent dividends. It has fed and is now feeding Massachusetts; — that is all. Even in this small field of duty it has not fulfilled its task at all well, and has made Eastern Massachusetts import the very staff of life by water from Portland, New York, and Baltimore; and in so far it is justly to be blamed. It only obeyed, however, the evident laws of trade, in that it never attempted or early desisted from an impossible competition.

De Witt Clinton, however, has now been dead just forty years. He accepted the Niagara Falls as an essential feature of his scheme, and placed the terminus of Lake navigation at Buffalo as an established fact. He did not foresee the Welland Canal, or its probable American competitor. It never occurred to him that twenty-eight miles of steamship lockage there now, and probably seven miles of it in 1876, would obviate the necessity of three hundred and fifty miles of canal-boat lockage through Central New York, and would empty the whole

trade of the upper lakes into Ontario, and far east towards the St. Lawrence and tide-water. The introduction of these two new elements, steam navigation — impossible on the Erie Canal — and ship canals around the Falls, have changed, and are destined to change still more, the whole nature of this problem, by extending the Lake zone from Superior to Ontario, and by bringing the terminus of Lake steam navigation, not to Buffalo, but to Ogdensburg, — *a point equidistant from New York and from Boston.* It remains, then, only to consider the practicability of competition for Boston in the Lake zone.*

Those who talk most of the advantages of natural position as affecting the course of trade, of the advantage of buying and selling in the cheapest market, and of other propositions as apparently self-evident as these, but each of which leaves it yet to be proved which really is or can be made the best position or the cheapest market, — all such persons, who invariably set down the commercial decadence of Boston as a fixed fact, useless to be struggled with, still admit that her future leaves her the central point of New England. The local provincial market is hers, be the same more or less. In any case, therefore, she is destined to remain the centre of at least three millions of industrious and energetic people. Accepting this as a universally conceded basis of wealth and trade, it remains only to go one step farther. How much can this area be extended by judicious enterprise and well-sustained effort? Apathy will doubtless decrease it; energy, seconded by judgment, cannot fail to enlarge it. It is the direction given to the effort which is in question; — all concede that an effort should be made. However great a difference may exist as to the possible limits of the extension, on two points all concur: that a degree of prosperity, now and hereafter, based on every known law of trade and convenience, does and will exist, and that its extension, within limits more or less large, is practicable.

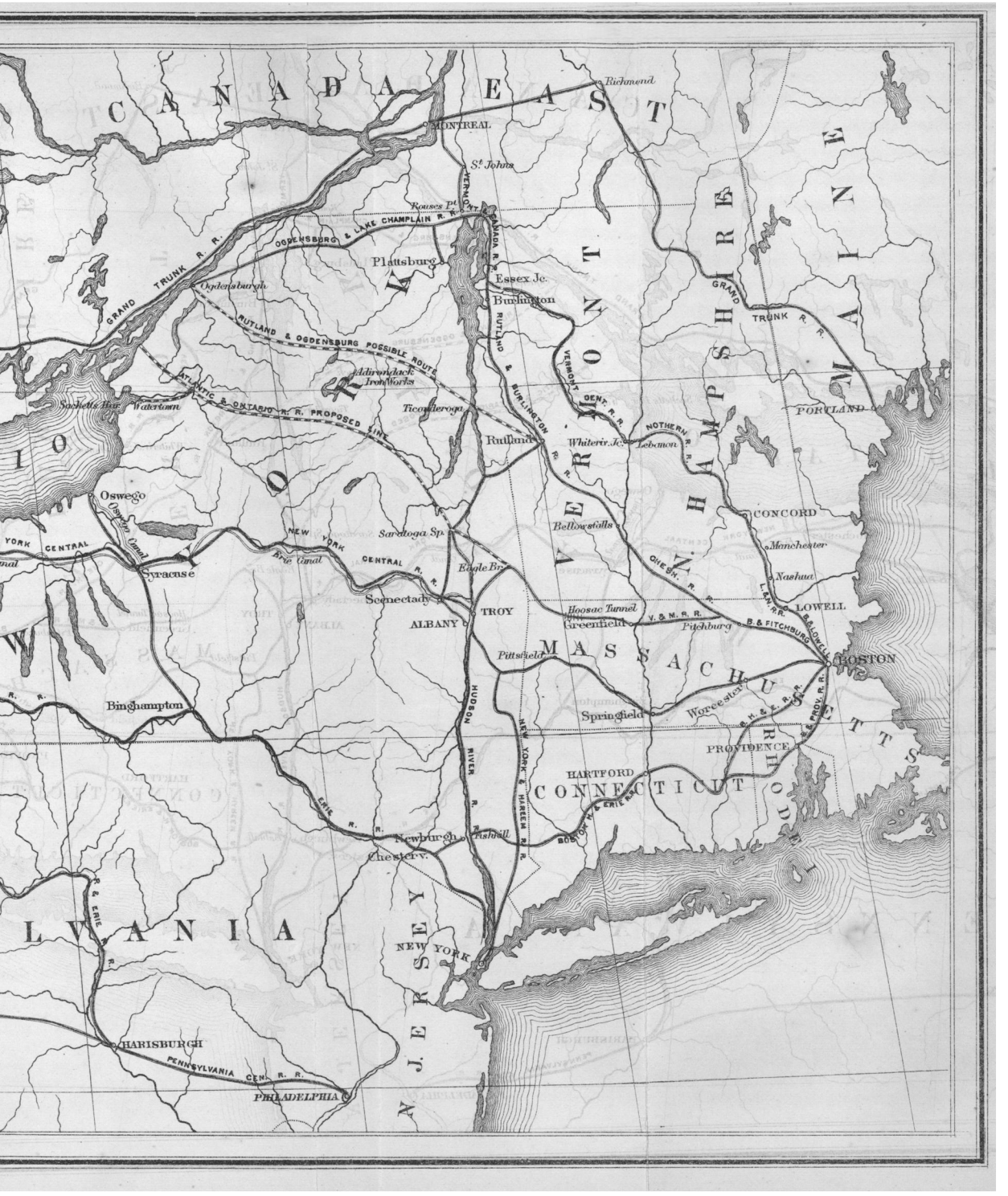
* The statistics of the Welland Canal demonstrate this tendency to Eastern Lake navigation. In 1850, 399,600 tons passed through this channel; in 1851, 691,657; in 1864, 1,332,837; in 1866, 993,938 tons; yet the capacity of that canal admitted only vessels of a maximum burden of 400 tons. The West is now almost angrily demanding a new canal, on American soil, which shall accommodate vessels of 1,500 tons; and should that be constructed, it is estimated that an aggregate saving of at least three cents a bushel would be made in the cost of transporting wheat by that channel to tide-waters.

Having established a basis of at least local prosperity, it only remains to study the map and the natural features of the country, as Clinton did fifty years ago, to see how this basis may be extended. There is New England; there are the Lakes. There are three hundred thousand miles of territory draining into those Lakes, and ships laden on Superior moving down to the rapids of the St. Lawrence. There are New York and Boston, equidistant in direct lines from the eastern point of navigation.* New England and Northern New York have thus assumed a new shape. They are now — what De Witt Clinton found the State of New York east of Niagara Falls — a great peninsula some three hundred miles wide, separating the waters of the Lakes from the sea. To cross that peninsula by the shortest and cheapest possible route is now the great problem throughout one half of the West. At last it reduces itself to a question of figures, as to which points are nearest, and what method of transportation is cheapest. Distance, transportation, and handling are the three elements to be taken into account. As for material, the West has enough for all. Its granaries are bursting, and its outcry for more lines of transportation is most natural. "When, close upon the Mississippi, corn is burnt for fuel, because the expense of sending it to market is more than it is worth, — when from Illinois, on an average, it costs the farmer three bushels to get the fourth to market in New York, and much more to lay it down in Liverpool, — when from all the Lake States it costs half of all the flour and wheat to the farmer to get the rest into the markets of the world, — . . . . when the break in the lines of transit through New York, in the spring of 1865, for the period of three weeks, occasioned a greater loss by far to the holders

* As these distances are important, it is well to have them clearly established at the outset.

From	Ogdensburg	to	Boston, direct,		is 300	miles.
"	"	"	New York, "		" 300	"
"	"	"	Boston by rail		" 406	"
"	"	"	" " "	and ferry from Plattsburg to Burlington	" 380	"
"	"	"	New York by rail		" 400	"
"	Buffalo	"	"	" canal and river	" 520	"
"	"	"	"	" Erie Railroad	" 423	"
"	"	"	"	" Central and Hudson River Roads	" 442	"

E. Lith Steam Prs Co. 34 Chauncy St. Boston.


CANADA EAST
Richmond
MONTREAL
St. Johns
Rouses Pt.
VERMONT
CANADA R.R.
OGDENSBURG & LAKE CHAMPLAIN R.R.
GRAND TRUNK R.R.
Plattsburg
Ogdensburgh
Essex Jc.
Burlington
RUTLAND & OGDENSBURG POSSIBLE ROUTE
ATLANTIC & ONTARIO R.R. PROPOSED LINE
Adirondack Iron Works
Ticonderoga
Rutland
RUTLAND & BURLINGTON R.R.
VERMONT CENT. R.R.
Whiterir. Jc.
Lebanon
NOTHERN R.R.
GRAND TRUNK R.R.
PORTLAND
Sackets Har.
Watertown
Oswego
Oswego Canal
NEW YORK CENTRAL R.R.
Erie Canal
Saratoga Sp.
Bellowsfalls
CONCORD
Manchester
Nashua
Syracuse
Eagle Br.
Schenectady
ALBANY
TROY
Hoosac Tunnel
Greenfield
V. & N. R.R.
Fitchburg
B. & FITCHBURG R.R.
B. & LOWELL R.R.
LOWELL
BOSTON
Pittsfield
MASSACHUSETTS
Springfield
Worcester
C. H. & P. R.R.
PROVIDENCE
RHODE ISLAND
HARTFORD
CONNECTICUT
Binghampton
ERIE R.R.
HUDSON RIVER R.R.
NEW YORK & HARLEM R.R.
BOSTON & ERIE R.R.
Newburgh
Fishkill
Chester
NEW YORK
NEW JERSEY
HARISBURGH
PENNSYLVANIA CEN. R.R.
PHILADELPHIA

of Western produce seeking the market than the Niagara Canal would cost, even though it should reach $ 25,000,000 of money," — when such are the facts now, the West may well be uneasy for the future, as it sees the facilities for reaching the Eastern and European markets increasing in no appreciable proportion to the increase of its crops. In solving this transportation problem, railroads running along the shores of the Lakes may be left out of the account. For moving large masses, railroads cannot compete with open steam navigation.* Massachusetts has learned that lesson on the Hudson. Now, as in the days of Governor Clinton, trade will naturally find its way across the peninsula which separates the Lakes from tide-water along the line of shortest land transit. That line the map shows us starts from the eastern end of Ontario. Thither the water flows down hill.

The point of possible competition, if any exists, is, then, established at the eastern terminus of Lake navigation, and so far the problem is simplified. Trade has arrived at the peninsula, and the question is now simply one of competition in cheapness, convenience, and speed in crossing it. Two elements, very distinct, enter into the discussion of this question: the construction of the lines of transit, and their management when constructed. New York has laid down all her lines to Buffalo; Boston has directed her lines to the Hudson, and to Ogdensburg on the St. Lawrence. So far as these lines are concerned, the single question is of management. One fact, however, must always be borne in mind, — that both geographically and by rail Boston is materially nearer to Ogdensburg than New York is to Buffalo.

And yet the question, even as concerns these roads, is not exactly one of management, but rather of management with a view to freight transportation. Competition, discussion, and experience are so rapidly evolving two new principles of cheap transportation, that they can already be considered as established, and may be stated with confidence. In regard to canals, their day is past. Only ship canals will ever be constructed in

* To move a ton of produce from Chicago to Buffalo by rail cannot cost less than $ 7.50, and at the present time costs much more; while by steamer it can now be moved, with a profit, at $ 4.50 per ton.

future; and, except for short distances and in very level countries where there is little or no lockage, the existing canals will be gradually abandoned. It may therefore be regarded as established, that, mile for mile, under any except the most favorable circumstances, a railroad will dry up a canal. The other principle referred to may be stated with equal confidence. In future, where competition exists for the movement of very large masses of freight by rail, no railroad which moves freight in total subordination to its passenger travel can compete with another road which makes the movement of freight its essential business, and regulates its passenger travel to accommodate it. This principle, once fully established, must necessarily lead to a complete reorganization of the railroad system. Hitherto the division of labor in that system has been extremely imperfect. Most people can recall the time when, in the early days of railroads, the passenger and the freight trains were often combined, and there were few freight trains which did not have some passenger cars attached. The tendency now is to divide the two descriptions of business, — to construct pure freight roads and pure travel roads. As yet, however, the division is not complete, and the prevailing system of management is unnecessarily costly just so far as this is wanting. Passenger travel and freight movement must necessarily interfere with and disarrange each other, so long as they are conducted on the same lines of rails. The result can only be long delays, great inequality of speed, and considerable confusion to the freight movement.* The principle of cheap, slow freight movement, as the main

* The movement of freight on the Erie Railroad, in 1866, was 478,485,772 tons moved one mile. Owing to the delays and unequal speed consequent on mixed travel, this immense mass was moved at a speed of fourteen miles an hour, when in motion. It is a commonly quoted law of railroad economics, that the cost of movement increases as the square of velocity. Good authorities assert that one express train wears more than ten freight trains. The average cost of moving freight on that road during the last six years has been twelve and six tenths mills per ton per mile. Supposing a regular speed never exceeding ten miles an hour, and applying the law just stated, a saving on the items of fuel, wear of rolling stock and roadway, and wages, would have been effected, in the case referred to, of four mills per mile per ton on the mass moved, reducing the cost to eight mills per mile, and leaving, upon a freight charge of one cent per ton per mile, two mills as profit. This would have afforded the road, even on the amount of freight moved, a net revenue of $ 956,971.54, or nearly $ 200,000 more than it actually earned on its whole business during that year in the manner in which it was conducted.

support of railroad enterprise, is new only as applied to the transportation of Western produce from the Lakes to the ocean. The final establishment of the division of labor indicated will inevitably be one of the results of future railroad development. Whenever freight roads shall be established, terminating, as they inevitably must, in New York, the commercial decadence of Boston will pass out of the range of controverted facts into that of undoubted history, unless this city is prepared to compete with equal weapons for the possession of her own territory. Nor do the future divisions of labor in transportation end here. One essential feature of the freight railroad will be that the same corporation shall not necessarily own both road-bed and rolling stock. Such a distinction is peculiarly important for a company running from waters where navigation is closed during the winter months by ice. The demand created by this distinction would greatly stimulate the rise of a class of forwarders, — great firms, like Pickford, or Chaplin and Horne, in England, — who would own their own rolling stock, while the road would furnish motive power. The facilities for transportation would then appear on, or disappear from, the various roads as the forwarders required and the season admitted, and a road to the Lakes would not find itself taxed beyond its equipment in summer or burdened with an idle machinery in winter. This last division of labor is so well adapted for the purpose, that it is probably destined to play as large a part in the future produce movement of America as it has long played in the coal movement in England.*

* "L'usage, à peu près général, d'après lequel le matériel nécessaire pour les transports minéraux est fourni par les expéditeurs, simplifie beaucoup le service de la petite vitesse sur les lignes Anglaises. Ces transports entrent, en effet, pour plus de deux tiers dans le mouvement général des marchandises, et ils constituent, on le sait, la partie du trafic qui est sujette aux fluctuations les plus nombreuses et les plus étendues.

"L'organisation Anglaise laissant ainsi aux expéditeurs de matières minérales le soin de prévoir leurs besoins et d'y satisfaire, les compagnies de chemins-de-fer n'ont plus à pourvoir qu'à la traction, c'est-à-dire à la partie la moins compliquée du service. Dans tous les cas, il résulte de cette organisation que pour les transports dont il s'agit les questions de délai n'existent pas, puisque le service se résume par l'exécution d'un remorquage. Dès lors, les compagnies n'ont à leur charge, comme fourniture de matériel et comme manutention, que la partie la moins considérable et la plus régulière des transports, celle qui comprend seulement les marchandises proprement dites, ou marchandises de classes." — *Commission d'Enquête sur les Chemins-de-Fer.* Rapports de 1862, p. 73.

It now only remains to consider the means Boston has of reaching the point of competition, — her lines of road to that point either already constructed, or those of which the construction is practicable. The matter of management, however, is far more important than that of construction; almost any line will do the work, and make competition possible, if it be but well managed; all the State roads or freight roads which the country admits of will not improve the prospect, unless their management is equal to the occasion. Towards the eastern end of Ontario, as being their one accessible point of competition, shrewd Bostonians long ago directed their eyes. To it a road was built, but it was a road which originated in accident, and the existence of which has been one of trouble. Instead of leaving Rutland, and striking out boldly, by way of Ticonderoga, through the Adirondac wilderness, to Ogdensburg, — securing the drainage of Lake Ontario, and trusting to itself and the future to people its line of route, — it ran deviously along through Central Vermont, turning painfully aside to visit each town of note, — here in the hands of one corporation, there in the hands of another, — skirting the eastern shore of Lake Champlain, and finally reaching Ogdensburg through alien territory, with the breadth of the peninsula increased from the necessary three hundred miles to more than four hundred. Nor was this all. Errors of conception and construction might have been, as they yet will be, redeemed by energy of management. This, however, could not, nor can it now be, until energy of management becomes possible. At present, one of the two routes between Boston and Ogdensburg is held by five, and the other by seven different corporations: some of these are rich, respectable, and lazy; others are poor, not always honest, and generally insolvent. So far as management is concerned, for a railroad to be in the hands of trustees is as disastrous as in business it is to have one's affairs in the hands of an assignee. The roads in question, especially those in Vermont, have through long years made rich the harpies of the law. One road for a long time did this to the extent of one hundred and fifty thousand dollars a year. Another road was rescued from the law by a direct outlay of one hundred thousand dollars. A third was

built up from bankruptcy by a shrewd and careful officer. Taken altogether, it may safely be asserted that there is no known vicissitude of railroad fortune or misfortune, no form of railroad rascality, blundering, mismanagement, and improvidence, no legal process known to the science of railroad law, which has not been exemplified, somewhere or at some time, in the history of that mosaic of lines which form the connection between Boston and Ogdensburg. It should also be said, however, that few States have been so fortunate as to be able to command, either in their cabinets or their diplomacy, such skill in negotiation, such executive ability, and such untiring perseverance as have been developed — it might almost be said wasted — in extricating these petty corporations from their tangled embarrassments. That work, however, is but yet half done.

The West is a country of large ideas, even though those ideas be sometimes incorrect; they do things on a large scale; their talk is "tall," their figures grand, their distances fabulous. Their elevators will hold a million of bushels, and they forward their produce thousands of miles to a market: they will not deal with conflicting interests, with trustees and lawyers and courts; their way must be made very plain. The next era in the history of these Lake lines, therefore, must be the era of consolidation. This, indeed, is only a question of time; but delay is fatal to successful competition. The channel is there, but artificial obstructions block it, and the water will not flow. In New York everything now tends to consolidation, and consolidation in the hands of able men portends as assured a success in the struggles of competition in trade as does the massing of troops under brilliant generals in war. It is said that recently the president of some connecting line of railroad asked Commodore Vanderbilt for a free pass over the Central Road, of which Vanderbilt had lately become president; the country official received a refusal of his request, immediately followed up by the inquiry, "How much will you take for your d— road, anyhow?" It is only a few years since the New York Central itself consisted of a patchwork of corporations, exactly similar to that of the present Ogdensburg route; but they were early consolidated, and with what re-

sult, so far as trade is concerned, Massachusetts well knows. Yet to-day, in that consolidation of lines which brings commerce, Boston stands almost a lifetime behind any other considerable city in America. To the north lie Montreal and Portland, with the Grand Trunk Road of thirteen hundred and seventy-seven miles of track under one direction and in one interest; westward is New York, stretching out her double consolidated lines, the one operating eleven hundred and eighty-three miles of road, and the other six hundred and ninety-two, to Lake Erie; south is Philadelphia, with her Pennsylvania Central and her Erie; farther south lies Baltimore, reaching out by an unbroken track through four States to the Ohio and on to Cincinnati, and soon to become, thanks to her energetic system, the second exporting city of the Atlantic slope; to the west lies Cincinnati, with her Atlantic and Great Western, constituting five hundred and seven miles of consolidated insolvency; and on the shores of Lake Michigan is Chicago, the great railroad metropolis, with her Northwestern of twelve hundred miles, and her Central of seven hundred, and with the eight thousand miles of track of which she is a centre, holding out her hands to Boston, who advances to meet her over five hundred and sixty miles of road in the control of twelve squabbling corporations.

Notwithstanding this unsatisfactory condition of affairs, certain facts are, however, established, certain points are gained. For instance, there is the point of competition. There are the roads leading to it, built and largely owned by Boston capital. The returns make it very clear that the development in that direction is natural. Already a transportation company owning fifteen steamers finds itself quite unable to satisfy the demands of trade between the western terminus of these roads and Chicago. This is a line of steamers with which patriotism has had little to do. This line may do something for the commercial prosperity of Boston, for its growth is founded on a succession of ten-per-cent dividends, and a handsome accumulated surplus. During the last year it has turned away hundreds of thousands of bushels of breadstuffs, simply because it had not capacity to carry them. It now asks for thirty steamers, and it will soon demand sixty. It may yet prove the nucleus of Boston

Ocean steam navigation. Portland is the winter port of Montreal. Baltimore is the tide-water outlet of Cincinnati and the Ohio, as New York is of the great body of the West. Each city has its interior affinities. While Ogdensburg is the throat of New England, Boston, through her existing line of Lake steamers and her future lines of Ocean steamers, should make herself the seaport of Detroit, of Chicago, and of Milwaukee. Her commercial development exists in this alliance, or it does not exist at all. The decay of her Ocean steam navigation, would she but realize it, has its full compensation in the vigorous infancy of her steam navigation on the Lakes. Her point of recommencement is not upon salt water, but upon fresh. While, however, this vision is pleasant to contemplate, while through Ogdensburg there deepens and widens for Boston a new channel of trade, yet her development through that channel is eternally checked by the endless bickerings of a dozen different corporations. The depots are at Ogdensburg, with all their machinery of wharves and elevators. That the ability is at hand, the results already attained make plain as day; all that is needed is concentration and system, and the field of New England might be spread out so as to include the whole Lake region. While Vanderbilt and Drew and Taylor are drawing the whole commerce of the country to one centre, men like Ames and Page and Starke and Stearns, as able and as experienced as they, seek in disgust other fields of development, or remain in Boston wasting their abilities and energy in getting bankrupt corporations out of court. Their lives are wellnigh thrown away in trying to establish some degree of accord among a dozen small factions, who seem solely bent on outwitting each other, who will not see that union is strength, who cannot be made to realize that they have but one interest, and that that interest is the interest of the community whose servants they are.

Such are the lines which Boston now has open to the point of competition, and such are their condition and management. It remains only to consider what other lines are possible. It has already been pointed out that the present system of Massachusetts roads leading to the West must lead nowhere, in so far as Western trade is concerned, as they have all been con-

structed to terminate at Troy, — the very point where river and steam navigation begins, where lockage and canal navigation end, and where, consequently, competition ceases. The lowest rate which the boldest railroad reformers suggest for the movement of freight in mass by rail is a dollar a ton per hundred miles. But on the Hudson it can be moved for forty cents a ton for the same distance; so that, when freight touches the Hudson, it will flow down hill to New York, and will not flow up hill to Boston. It is therefore claimed that Troy should not be the terminus of the Massachusetts system, but that that terminus should be moved thirty-two miles north of Troy to Saratoga, and that the Massachusetts railroad system should be extended and made independent of that of New York, by means of a freight railroad directly across the Adirondac wilderness, one hundred and eighty miles, to Sackett's Harbor. This would make the shortest line from the Lakes to tide-water, it would narrow the peninsula to three hundred and sixty miles, it would bring Boston as near the point of competition as New York, and it would complete the whole system of Massachusetts railroads. The construction of such a road would be both feasible and cheap. It has already been attempted, and twenty-five miles of it are now in operation, while fifty more have been graded and the whole route surveyed. The execution of such a scheme would also give some reason for the completion of that Hoosac Tunnel, in which Massachusetts is so deeply embarked, and which, as leading to Troy, can be only a stupendous monument of engineering folly. Not so, however, it is claimed, if it leads by way of Saratoga to Sackett's Harbor. It would then furnish the shortest possible line from the Lakes to the Ocean, and, built by the State, and admirably adapted for the purposes of freight movement, it would ever be the great outlet for the West. Nor are all the advantages of such a line yet enumerated. The western terminus at Saratoga would feed not only the road to Boston through the Hoosac Mountain, —that would be but the shortest route, — it would also feed the Boston and Albany and the Rutland Roads; so that the whole Western grain crop could, with ease, be laid down on the wharves of Boston at the lowest charge possible by rail.

The purpose of this paper is rather to discuss what can now be done with the means at hand, than to bring forward any schemes, however brilliant. The plan just sketched out for reaching the Lakes certainly deserves and should receive the most careful consideration. So far as the Hoosac Tunnel is concerned, such an object, clearly kept in view, could alone justify its completion. The outlay involved in so extensive a project is evident, but, if it accomplish the end desired, the outlay is the least consideration. To complete the Hoosac Tunnel may cost ten millions of money, and to build the proposed line of road would certainly cost as much more. What, however, is even that outlay, when its return is the possession of that trade in the breadstuffs of the West which New York now esteems as worth more to her than her gold to California? Certainly the community which has sunk forever more than fifty millions of money since 1861 in bubble schemes — in coal and oil and copper and gold mines — might well invest less than half of that sum in what must ever remain one of the richest channels of trade in the whole world. So far as the West is concerned, such a road would be of inestimable value. Of this no doubt can exist. If constructed by private capital, such a road could hardly fail to be remunerative, for over it must of necessity pass the great movement of freight, whether that movement be to New York or to Boston. To the Bostonian, however, one doubt suggests itself: Would that movement be to Boston, or would it be to New York? The eastern terminus of the proposed line is Saratoga, and Saratoga is alarmingly near the head-waters of the Hudson, — is already connected by railroad with Troy. By whomever built, owned, or managed, the proposed road must be no less open to freight moving from Saratoga to New York than from Saratoga to Boston. So far as this road is concerned, therefore, Saratoga and Troy must be considered as one, and both as placed at the head-waters of the Hudson, — that river so fatal to Boston, which always will flow to the sea. This plan, therefore, while it is brilliant and deserving of careful consideration, while it promises rich returns for the outlay it demands, while to the West it is of the first importance, cannot be considered as undoubtedly tending to the commercial development of Boston.

It is more likely to bridge the peninsula from Ontario to the head-waters of the Hudson than from Ontario to tide-water. This is certainly the view taken of this project by enterprising New-Yorkers. It entered into the discussions of the Detroit Convention in 1865, and Mr. Littlejohn, there representing New York, said of it:* "The nearest point on Lake Ontario to the Hudson River is Sackett's Harbor, and next Oswego. From one or other of those points private enterprise will soon construct a double-track railway to Troy or Albany. A propeller of fifteen hundred tons could leave Chicago and reach the lower end of Lake Ontario in six days. A train could be loaded up by an elevator from the vessel and despatched every two hours, which would take from 200,000 to 250,000 bushels to the Hudson River in every twenty-four hours. The cost of transferring the grain from the vessel to the cars would be but a quarter of a cent per bushel, and the law of gravitation would carry it into the barge at Troy or Albany, and another day would put it on board the ship for Liverpool." It may well, therefore, be questioned whether Boston should now turn her attention to the construction of new and dubious lines of communication. While the lines already constructed are but half finished, and not utilized to a tenth part of their capacity, she may find in their instant development ample field for enterprise and investment of capital. To their consolidation and enlightened management she may well direct all her superfluous energies for the next five years. She had best fight it out on that line.†

* Proceedings of Commercial Convention, p. 74.

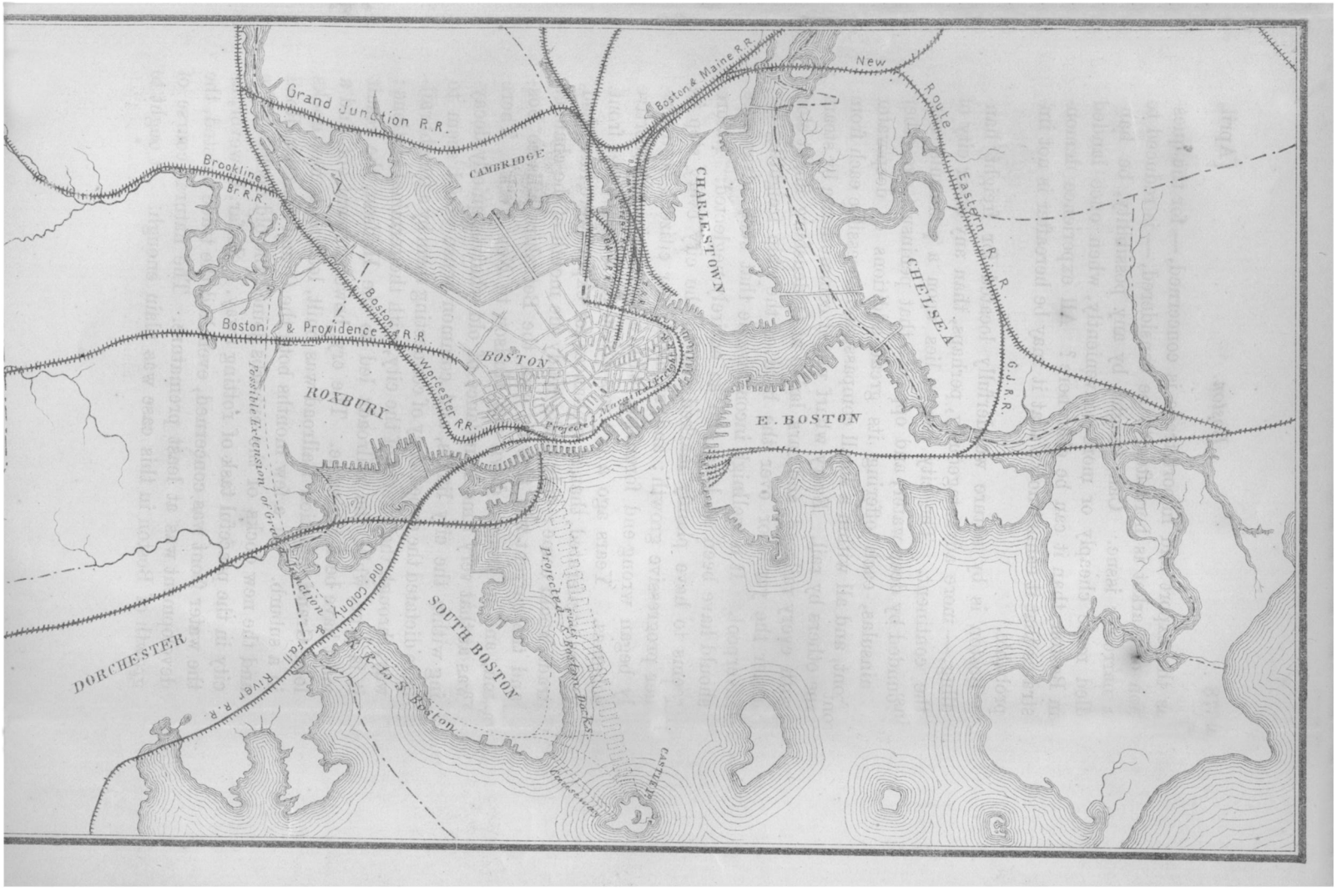
† The relative advantages of New York and Boston in regard to the proposed Atlantic and Ontario line may be stated as follows. From Ontario to Saratoga the line would be in common, and may be left out of the question. From Saratoga to navigation on the Hudson, at Troy, is about as far as to Eagle Bridge on the road to Boston. From Troy to New York by river is about 150 miles. Allowing freight to be transported at five mills per ton per mile, the regular New York allowance for the Hudson River freights, the cost to New York from Troy would be seventy-five cents per ton. The distance from Eagle Bridge to Boston, by the Hoosac Tunnel, is 167 miles, and the roads which constitute the route are unconsolidated, owned by several corporations, and operated as passenger roads, so that freights over them would probably be nearer two cents a mile than one. Allowing, however, the freights to be one cent per ton per mile, the cost per ton to Boston could not be much less than $1.70, or nearly $1.00 per ton, or three cents per bushel, more than to New York. Arrived in Boston, the freight must be hauled through the crowded streets of a city, either by horse power or steam, while the freight sent to New York

The geographical influences entering into the problem have now been disposed of. Next to be considered are those economical influences which were defined as including all the appliances and inventions by which cheapness or convenience, either natural or artificial, is obtained, and as being more decidedly than the geographical influences within the control of man. Properly, railroads come under this head; but they have been disposed of in the other connection. Here, again, the end always to be kept in view in this discussion must be recalled to mind, — that end being to make Boston an outlet or inlet for some existing demand of commerce, as cheap and more convenient, or as convenient and cheaper, than any other attainable point. The attempt hitherto has been to discover how and where, by what means, and for what region, she could be made as cheap and as convenient as any other port. If the possibility of her being so made is established, it remains to take the next step, and to discover how she can be made either cheaper or more convenient. The positive degree, making competition possible, being established, the comparative degree, making successful competition probable, still remains to be attempted. The positive degree, it is conceded, is not enough. All things being equal, trade will inevitably flow to New York, where is and ever will be found the great mart and resort of men. At this late day, the waters of the Pactolian stream of trade will not flow to Boston, unless Boston be on a lower level than New York. In the plain language of the Corn Exchange, the problem is, How to lay down for export a bushel of wheat five cents cheaper in Boston than it can be laid down in New York. That problem is not yet solved. Fortunately, however, other influences less subject to human control being equal, the influences which now come into play are those over which man exercises more control. The question of competition, so far

would glide by water to any pier or ship's side in the harbor. All the advantages of terminal handling would thus be in favor of New York. It is not easy to see how Boston could compete over the line which it is proposed to build for her special advantage, unless it can be proved that the cost of shooting the freight out of the cars into the lighters at Troy would exceed $1.00 per ton. As this task would, according to Mr. Littlejohn, be performed by "the law of gravitation," this proposition can hardly be maintained.

as the export and import trade is concerned, — for the question of market is hereafter to be considered, — is reduced to a narrower issue. Can freight, by any possibility, be handled more cheaply or more conveniently, when once landed in Boston, than it can be elsewhere? All experience demonstrates that it cannot now; that it may be hereafter is not improbable.

Boston is by nature wonderfully located for freight handling, — more advantageously, perhaps, than any other city of the continent. The city proper lies upon a peninsula surrounded by deep water, and opposite that peninsula are other peninsulas, each offering its great additions of deep-water front, and all within a small compass, and accessible each from the others by rail. Every wharf might communicate by steam with every railroad, and cars laden at Ogdensburg might stop under the yards or over the hold of the ship freighting for Liverpool. It is wellnigh inconceivable that such advantages should have been so long and so entirely neglected. Nature seems to have plainly marked out to the city every step in her progressive growth; and, as usual, her citizens obstinately began wrong-end foremost, with a succession of abortive schemes. Years ago a cry was raised for a deep-water front. It was vociferated, that, if appliances for export were furnished, trade would come: only make ready the mouth of the channel, and the current will flow up over the Berkshire hills to Boston, and no longer down the Hudson to New York! There was at that very time abundance of old wharves quietly decaying within the city limits, and common sense would seem to have dictated the expediency of connecting them by a freight railway, through the streets of the city, with the terminal stations: it is true, while the railroads led to the Hudson, the result must have been the same. The cry, however, went out, and a long Grand Junction Railroad was built, leading to new docks in a suburb. In a few months both the Grand Junction Road and the new docks of the suburbs joined the old docks of the city in the peaceful task of rotting away. So far, however, as the water front was concerned, even had the trade existed, the development was at least premature. The natural course of growth of Boston in this case was plain enough. It ought to


Grand Junction R.R.
Brookline Br. R.R.
CAMBRIDGE
Boston & Maine R.R.
New Route Eastern R.R.
CHARLESTOWN
CHELSEA
Boston & Providence R.R.
Worcester R.R.
BOSTON
ROXBURY
E. BOSTON
G.J.R.R.
Old Colony & Fall River R.R.
SOUTH BOSTON
DORCHESTER
Projected Extension of Boston Docks

have saved its capital to perfect its railroad system, and should have utilized old docks before building new ones. If commerce ever returns to Boston, the city will overflow its limits, and then will come the day for Grand Junction Railroads, and for the docks of the suburbs. Both economy and convenience demand that the city proper should first be utilized.

Another year will see this done, and a freight railroad, skirting the wharves of the city, will make Boston cheaper than any other city for the handling of freight, and convenient to a degree which New York cannot hope to reach for years. Every station will communicate with every wharf, and the freight car can drop its load by the run into the hold of the packet. That, so far as convenience is concerned, this is more than as good, is better than the facilities afforded by New York, may be asserted on the strength of such statements as this from her own most reliable organs: —

"At present New York is the most inconveniently arranged commercial city in the world. Its wharves are badly built, unsafe, and without shelter; its streets are badly paved, dirty, and necessarily overcrowded; its warehouses are at a distance from the ships, and for the most part without proper labor-saving machinery for the quick and inexpensive transfer of goods; its railroad depots have no proper relations to the shipping or to the warehouses; transportation, needlessly and enormously increased by this ill arrangement, is made more costly yet by uneven pavements, which waste the strength of horses. Its laborers are badly lodged, and in every way disaccommodated; the means of going from one part of the city to the other are so badly contrived, that a considerable part of the working population — which includes nearly all the youth and men, and thousands of women and girls — spend a sixth part of their working-day on street cars or omnibuses, and the upper half of the island is made almost useless to persons engaged in daily business of any kind in the city."*

While such shall be the condition of her overshadowing competitor, the Marginal Freight Railway will, at once, on its completion, eliminate another element of difficulty from the problem, and this time decisively in favor of Boston. The im-

* New York Evening Post, 20th March, 1867.

portance to Boston of this enterprise cannot well be overestimated. One great advantage which New York has hitherto enjoyed as a point of shipment, especially of breadstuffs, has been, that the canal barges, laden at Buffalo and tugged down the Hudson, have broken bulk by the side of the ships which were to convey their cargoes to Liverpool. In this case there was no trucking, no handling, — the whole machinery ran without friction. In Boston, on the contrary, everything which entered the city, either by land or by water, had to be handled by men or drawn by horses: the friction was extreme. It is impossible accurately to compute the burden of this tax on the business and enterprise of the city.* It alone, however, would have been amply sufficient to turn the scale in competition, other things being equal.†

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* Though the statistics in this case are wanting, some results may be approximated. The usual charge for truckage through the streets of Boston may be roughly averaged at one dollar per ton. Where the charge is by bulk and not weight, it would naturally exceed that sum. This would constitute a charge of three cents a bushel on cereals, and would alone render their exportation impossible. A single large company of Boston iron-founders now pays forty thousand dollars a year for truckage, which is, of course, nothing but a tax on trade, imposed by a defective commercial machinery, and so much dead weight in active competition. The removal of this difficulty, by means of some machinery which shall bring the wharves and warehouses and stations of the city in direct communication by cheap tractive power, might not unreasonably be estimated as equivalent to a premium of fifty cents on every ton of goods now landed in the city. As the freight movement of the Boston roads is about three million tons a year, all of which is subject to truckage, and large masses are also landed at the wharves and stored in the city, the whole annual freight movement of Boston may probably not unreasonably be computed at four million tons. The system of the Marginal Freight Road is now in its infancy; but, even so far as matured, it can hardly fail to economize two million dollars per annum in the handling of that mass.

† All the elements of cost affecting the transportation of Western produce for export have now been passed in review. Few figures or statistics have been cited. The end proposed was to inquire as to the possibility that a forwarder would ever be able to lay down a bushel of wheat on shipboard in Boston for five cents less than he could do it in New York. The case stands thus: The cost for 1867 of bringing a ton of wheat to New York from Chicago, by the cheapest route, through Buffalo or Oswego, was stated by the New York Financial and Commercial Chronicle (28th September, 1867) at $9.57. As the season advanced, the prices on the canals advanced also, until they stood, for the bulk of the harvest, at about $13.50. Meanwhile, of late years, the canal freights do not regulate the produce freights to New York. The following figures represent the tons of breadstuffs transported, during the years specified, by way of the Erie Canal, and over the New York Central and Erie Railroads, respectively: —

A new obstacle in the way of commercial development may, however, be suggested. Exports are, perhaps, provided for; but commerce cannot live by exports alone: whence are to come the imports to balance those exports? New York is the great point of import, and ships cannot afford to come round thence in ballast to Boston for a return cargo. The difficulty with Boston, however, has hitherto been, not imports, but return freights. Ships which come loaded to her wharves

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	Erie Canal.	N. Y. Central and Erie Railroads.
1856	475,385 tons.	431,970 tons.
1857	263,141 "	396,558 "
1865	420,614 "	561,780 "
1866	289,166 "	851,626 "

"These figures present the remarkable circumstance, that our railroads are gradually, but surely, supplanting the canals for this species of freight." Three causes enter into the explanation of this fact: — the danger of loss by heating on the canals in summer; of freezing in winter; and the certainty of delay at all seasons. A single forwarding house in 1861 lost $50,000 by heating between Buffalo and Albany; between the same points, during the last winter, some five million bushels of grain alone, exclusive of all other products, were frozen up; and the movement by canal does not average two miles per hour, against ten by rail. The competition, then, is with railroad, and not canal freights. Without multiplying figures, and taking the returns of 1866, it appears that the average charge per ton per mile for transporting freight on the Central Road was 29 mills, and on the Erie 24. Breadstuffs were, of course, carried below the average, and at a charge not above the cost to the roads of average movement, which was returned at 27 mills per ton per mile on one road, and at 19 mills on the other. If the charge on breadstuffs was averaged for both roads at two cents per ton per mile, or at three mills less than the mean average cost to them of transportation, the movement by rail could have averaged hardly less than $8.50 per ton in freight charges from Buffalo to New York. And this does not include the cost of elevating and warehouse charges at New York and Buffalo, nor the cost of "lighters, which must be employed at considerable extra expense to take the freight brought by railroads to the part of the city desired." The lake freight from Chicago to Buffalo ranges from $3 to $4, and may be averaged at $3.50. These figures would seem to establish the fact that the immense bulk of breadstuffs between Chicago and salt water pays in freight, before it reaches the ship's hold, not less than $12 per ton. This may therefore be fixed as the limit within which competition must come. The summing up, then, is: Time from Chicago to New York, by canal, twenty-one days, or, by rail, seven days; Cost on a bushel of wheat, thirty-six cents.

The case in regard to Boston stands as follows. The Northern Transportation Company receives on an average $5 per ton freight from Chicago to Ogdensburg; with a sufficient quantity to transport, the unconsolidated roads even now will take the freight there and deliver it in Boston for $6 a ton; and the Marginal Freight charges, those for elevating, measuring, insuring, &c., will not exceed fifty cents more: making a total, *every charge included*, of $11.50 per ton. The summing up,

leave them in ballast to seek cargoes elsewhere.* Imports may be divided into two classes, — those which come seeking a market, and those which come seeking simply a channel of entrance for an interior destination. So far as the great market is concerned, the question is decided. New York is, and will always remain, the great mart of the country, — the place where men buy and sell; not only can no effort of Boston or any other port disturb her supremacy in this respect, but Boston cannot prevent her own manufactures from flowing thither as to a better market than her own. But because men can there best buy and sell, it by no means follows that there they can most conveniently export or import, as through a point of transit. On the contrary, the very bustle and confusion of the great Babel would indicate the reverse. Boston might, then, find her account in showing herself to be a convenient point of transit, a place noted for the quick, cheap, and honest handling of goods. Such a character Boston has not yet earned. The absence of all means of handling goods, the cost of truckage, the insufficient railroad facilities, and general absence of system, have hitherto thrown this business into the hands of Portland. Boston has hardly imported and forwarded directly to the West to the extent of a million dollars a year. Portland, however, having the Grand Trunk to aid her, out of an aggregate of imports about one third that of Boston, receives a million a year of direct importations by steamer for

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then, will be: Time from Chicago to Boston, ten days; Cost on a bushel of wheat, thirty-four cents.

This is the existing condition of affairs. But Boston has her position to make in the future. Once establish the germ of the transit business in the city, and the Niagara Ship Canal will surely come in time. Should the completion of that enterprise within any reasonable time enable steamers of fifteen hundred tons measurement to come down to Ogdensburg, and there find a consolidated railroad company, making the freight movement its specialty, to send forward their cargoes to tide-water, then wheat could be delivered by this route on shipboard for $8 a ton, or twenty-three cents a bushel, instead of thirty-four as at present, or *five cents a bushel less than the lowest charges of the Erie Canal for* 1867. That limit is one perfectly within the power of Boston to attain, on it she should keep her mind fixed, and to it direct her endeavors.

* Foreign commerce of Boston: —

	1864.	1865.	1866.
Exports,	$ 20,417,710.	$ 16,530,328.	$ 21,305,531.
Imports,	31,615,000.	29,439,000.	47,923,000.

Detroit, Chicago, and Milwaukee. The delays and extortions incident to landing goods in New York will be touched upon presently; in Portland these goods are landed, appraised, the duties estimated, the bonds given, and the articles fifty miles on the way to their destination within a few hours after the steamer has made fast to the pier. A business so managed cannot but increase.

This system, however, is yet in its infancy; but the West loudly demands it, and what the West demands she usually gets. One of the preambles and resolutions put forward by the recent Commercial Convention held in Boston was in these words: —

"Whereas the cities of Boston, Philadelphia, Cincinnati, and St. Louis have, through their Boards of Trade, desired a change in the laws regulating foreign importations; therefore

"*Resolved*, By this Convention, that in our opinion Congress should, by necessary legislation, secure such change in the laws regulating foreign importations as shall authorize invoices of merchandise arriving at one port, but designed for another, to be directly forwarded from the ship's side to the ultimate ports and custom-houses for entry, and without warehousing or other detention at the port of arrival."

The whole interior region of the United States is interested in the change of law here suggested; for that whole region is an importing country. It now buys imported goods in New York, and pays the importer his profit; but it also more and more imports for itself, and saves that profit. For the handling of all such imports Boston can compete: and here she may find the imports wherewith to balance her exports. And not only from this source may any necessary balance of exports be derived; the very merchants of New York will, in obedience to the laws of trade, import through Boston, or any other port equally accessible, which can prove itself to be beyond question, as a port of entry, pre-eminently cheap and convenient. Not that New York is not, and will not always remain, the *facile princeps* among American ports of entry; but at present New York is neither cheap, prompt, convenient, nor honest. All the economical appliances in use there are notoriously defective. Docks, warehouses, drayage, and

Custom-House are all equally the subject of daily complaint. It is openly charged that every Custom-House official must be paid, and paid handsomely, both for doing those things which he ought not to do, and for leaving undone those things which he ought to do. "The North River order business" — another name for a great system of extortion — has recently on high authority been defined as "the collector's big plum," and the country may not yet have forgotten the revelations contained in the report of March 3, 1867, of the Committee on Public Expenditures on the abuses of the New York Custom-House. Probably the case of Landman and Kemp, cited in that report, does not stand alone. That firm imported certain cases of quinine on which the legal charges should have amounted to $5.32, and they produced the bill of extortions rendered them, and it amounted to $30. The statement then made, that examples of bills of such a "make-up," increasing certain legal charges to one thousand per cent, could be multiplied *ad infinitum*, would seem to lend an air of probability to the remark attributed to A. T. Stewart, that every ton of goods brought from the steamship pier in Jersey City to Broadway cost $5 in charges. Nor is the material condition of things more favorable to importers than the moral. One extract from the New York press has already pictured the con dition of the general business facilities of that city; another, from an authority equally high there and throughout the country will more particularly set forth the condition of those parts of New York especially devoted to shipping. "The wharves of such a city as New York are really to its floating commerce what the streets and highways are to its locomotion by land. The objections which are continually making to the present dilapidated and dangerous state of things are precisely analogous to the objections which are daily made, and most justly made, to the hideous condition of our facilities (falsely so called) for getting up and down town. If our streets were mere ruts, unpaved, full of holes and stones, unlighted by night and unregulated by day, we should have in the internal economy of our city transportation just what we now have in the river frontage of the metropolis." And again: "The detentions to vessels are long and mischievous.

Ships are detained many days before they can discharge their cargoes; there are no warehouses where goods may be loaded and transshipped without leaving the pier; it is necessary to move everything by carts; meanwhile river thieves have an ample field for remuneratively plying their vocation. . . . . It is entirely within the limits of possibility that at some not very distant day this scandal of our city, if it be not done away with, may actually result *in transferring the bulk of our exportations and importations to some rival more enterprising than ourselves.*" * Her very prosperity makes New York careless of improvement. Hers is the great market; she is, and must remain, the great emporium of trade and the centre of finance. All this is conceded, and the very concession makes her inert at reform. Here Boston has the advantage. While a suspicion of decadence has taught her a bitter lesson, prosperity has made New York too confident. It may be that pride does not with cities, as with men, precede a fall, but it certainly will develop weak points of which a watchful opponent may take advantage. Even now, when Boston has no railroad connecting with deep water, the New York merchant could enter his goods through Boston and forward them to New York more cheaply and with less trouble than he can enter them through his own custom-house.† This will be infinitely more apparent, when a freight car can be placed under the yard-arms of every packet moored at the wharves.

Hitherto the question has been of the commercial influences affecting the problem. It now only remains to leave natural laws entirely out of consideration, and to deal with the one disturbing element in the problem which rests wholly under the control of man. The influence of legislation remains to be considered. A subject which includes the law of corporations, the usury laws, the railroad legislation, and the State and city system of taxation, is, in itself, not small. Massachusetts did well a year ago in repealing that usury law which sought to place a

* New York Commercial and Financial Chronicle, January 6, and December 8 and 22, 1866, and March 2, 1867.

† The single firm of Jaffrey & Co. have imported through Boston to the extent of $ 800,000 in one year; and the aggregate importations of New York firms, chiefly in dry goods, through this port have in some years amounted to $ 5,000,000, or about twelve per cent of the entire amount entered.

uniform value on credit. Of that repeal an influential New York paper has recently said: "That is, we conceive, the most damaging act, as regards its effect upon us, which has been done for many years in New England; and unless we repeal ours, it will do more than a dozen bridges across the Hudson to divert our trade, by diverting our capital and enterprise to Boston."* But all the usury laws of Massachusetts are not yet repealed. There still remains on the statute-book that absurd restriction which provides that to earn more than ten per cent, and not to be able to conceal it, is ultimate destruction to a Massachusetts railway. This is a usury law of the most blighting description, — a usury law which makes increase of business a source of terror to those very lines on which an increase of business must be the first indication of the increasing volume of commerce. In its railroad legislation, Massachusetts still adheres to the exploded system of regulating profits, and not charges. Her lines may now charge what they please; no limit is assigned them there; but they may not divide more than a given per cent. One system, and one system only, — the contract system, — can make the now divergent interests of community and corporations coincide, and that the State must study out and apply. In consideration of receiving their charters and a monopoly of the lines of travel for a specified time, railroads must agree to fulfil every demand of travel and traffic over that line at specified rates, and all they can earn in so doing, in energetically fulfilling their contracts and expanding their business, they should be free to divide.

Wheresoever investigation turns, however, the same crying necessity for reform is encountered. The cost of truckage, for instance, has been referred to, and a rude estimate ventured as to the amount of the burden it imposes on the commerce of the city. The sum of petty exactions does not stop there, but one charge follows another, each small in itself, until the aggregate becomes, not large perhaps, but enough to render competition impossible. One dollar for truckage brings the ton of Western freight to the wharf, where the wharfinger receives it, and charges his forty cents a ton for wharfage: a small sum, but, with truckage, swelling the aggregate to four and a half cents

* New York Evening Post, January 21, 1868.

for transferring each bushel of wheat from car to shipboard, — a sum sufficient to move two bushels from Troy to Brooklyn. In some cities, which have advanced with the times, dock charges are simple: in New York, for instance, the whole code is contained in six short lines of an act of Assembly which provides that so much per ton per diem, by admeasurement, shall be paid by each vessel which lies at a wharf or pier, and so much per ton per diem upon all merchandise left upon a pier over forty-eight hours; and wharfage charges constitute a lien on vessels and goods. In Boston, on the contrary, the tariff of the wharves constitutes a literature in itself, and is quite a curious relic of Middle-Age learning. It savors of the feudal system, and seems to have been handed down to us by tradition from some old Colonial wharfinger. It includes a study of dockage charges and wharfage charges, — sometimes the wharfage including dockage, and then again dockage excluding wharfage. But wharfage is the black-letter learning of the science, and constitutes a study hardly less mysterious than the United States tariff. Twenty pages of double columns contain all known forms of measurement and articles of commerce. There are bags and bales, tons and tubs; nails by the hundred, and nuts by the bushel; church organs by the foot, and cantharides by the case. Corn-shellers are charged six and a quarter cents each; a cow pays fifteen, and her calf five cents; a bale of cotton pays ten cents, and a hundred pounds of putty pay two; so also does a basket of wine, — though a butt of the same article pays fifteen cents, and a cask of ale pays ten: and so the list goes on, through living and dead, from anchors to washboards, after a fashion well calculated to worry importers, and to give them a vivid hint of horrors to come within the doors of the Custom-House. Such a system needs reforming altogether.

Even were transportation and truckage and wharfage reformed and right, the system of taxation is fearfully and wonderfully wrong. It seems almost to have been framed with an eye to the encouragement of vice and the destruction of enterprise. In proportion to rate and principle of assessment, the taxes of Boston, even were they skilfully adjusted, would be ruinously oppressive. It may in fact be safely asserted that

Boston is the most heavily taxed city on earth. She conceals this fact ingeniously from herself and others by placing her rate of taxation low, — that is, low for America, — and assessing the property of her citizens at its full value. The fact that she is the most heavily taxed city on earth is, however, sufficiently susceptible of proof. No one who walks her streets can fail to be convinced, that, as compared with other cities, Boston is more than substantial, — that she is wealthy; but it may well be questioned whether she is more than twice as wealthy, in proportion to her population, as any other great city of America. Yet in 1866 her *per capita* valuation amounted to $1,934 for every human being within her limits, while the similar valuation of New York was $820, that of Baltimore $381, that of Chicago $429, and that of Brooklyn $411. The same handsome pre-eminence may be safely claimed for New England's capital after an examination of the *per capita* taxes paid in the various cities. In Chicago, in 1866, every man, woman, and child paid on an average $23.69 for the blessings of their government; in Philadelphia the amount was $23.39; in New York it rose to $33.13; but Boston stood proudly out with a *per capita* average of $38.42, or just seventeen per cent higher than the more than ever envied commercial metropolis.* Such were in that year the municipal taxes in America, while the unfortunate "tax-ridden" people of London were groaning under a *per capita* burden of $9.28. Here is another extra weight imposed upon Boston, — she is handicapped out of all reason in this race, in which she has nothing to spare. The want of concentration and combination in her railroad lines is one weight, and a terrible one; her statute restrictions on the growth of the business of those lines is another; the friction of commerce, as it toils through her streets, is another weight, and a weight which places a tax of one dollar on every ton of merchandise which she handles; then comes this last weight, — a load of taxation such as no other community on earth is called upon to submit to, and which alone is enough to drive the ships from her wharves, the

* See the tables, statistics, and conclusions on this subject in the paper entitled "Debts and Taxation of our Large Cities," in "Hunt's Merchants' Magazine" of August, 1867.

customers from her shops, and the merchants from her warehouses.

Not only, however, is this tax most burdensome in itself, but it is most clumsily and ignorantly imposed, as if intended to cause the greatest possible obstruction to business and enterprise. Some hints might be obtained on this subject from "benighted" England, where taxation has finally been reduced to a science, had it not become a fundamental principle of American faith that every man is competent to legislate, and that in legislation there is nothing to learn. The English system is a simple one. Almost the whole revenue is raised from a tax on certain articles of luxury; while all capital actively employed in commerce, or any mode of producing wealth, is exempted from all taxation, except a certain direct tax upon profits. Accordingly, while in 1867 twenty-nine per cent of the whole British revenue was raised from its excise tax on spirits and malt, and from licenses, those great lines of steamers which are driving our own steam marine from the ocean expanded without restraint, save a certain per cent tax on their profits, if any were made. There seems to be a degree of carnal wisdom in such a system. Meanwhile, what course is pursued in Massachusetts? Certain patriotic business men of that State move heaven and earth to raise money and build a line of steamers to run from Boston to Liverpool. The line takes every chance against it; the risk of heavy loss to those contributing to it is great, — the hope of profit very small. The company struggles along and builds and equips its steamers, and ventures them out in competition with those of Liverpool. Meanwhile the assessor and the tax-gatherer are at hand. If the competing English steamer makes no profit, it pays no tax; profit or no profit, competition or no competition, the one and a half or two per cent of taxation on its assessed value must be exacted from the Massachusetts steamer. So much as an example of the intelligent and discriminating manner in which taxes are imposed. — It now remains to consider where exemption comes in. It has already been stated that England raises nearly one third of her whole revenue from an excise law. The consumption of spirits is an almost pure luxury. The consumer can

generally as well abstain from their use, and the additional cost imposed on consumption in the form of tax is little regarded. Spirits, however, and licenses to sell alcoholic stimulants, all the main sources of an excise revenue, Massachusetts, in the exercise of an enlightened philanthropy, has hitherto refused to consider as fit subjects of taxation. Commerce, trade, enterprise, may languish under a load of imposts, — one leading article of Massachusetts exports may be, as it is, a million of gallons of rum each year to the western coast of Africa, — but her moral sense revolts from an excise tax at home. The best authorities concur in saying that from this source alone, with scarcely a sense of burden, the State could raise a revenue of at least a million and a half a year. That burden is now imposed on business and enterprise, — on capital employed in the production of wealth, — on Boston firms engaged in the war of trade with the firms of Providence and New York; — it is another dead weight in the fierce race of competition. No one need wonder that the Liverpool steamer drives the Boston steamer from the seas.

Here is room for missionary labors. People may say, and legislators may enact, what they please; the stern logic of taxation will at last convince us that there is a science of revenue; that the careful adjustment of taxes has something to do with the healthy development of trade; that the good old rule which directs the legislator to impose a tax of one per cent on everything, and if that is not enough, to make it one and a half, and if he can find any foreign capitalist creeping into the State, to scalp him, — this rule does not, after all, express the whole science of revenue. When this idea has worked its way through the pockets into the heads of the people, Massachusetts may follow the good example already set her by Congress in the appointment of a Commissioner of the Revenue. That Commissioner, now on the whole the most useful man in the country, is rapidly adjusting all taxation to meet the wants and convenience of the United States treasury. If States and cities do not move quickly and understandingly in this matter, they will shortly find every source from which revenue can be raised without oppressing enterprise monopolized by the Federal government.

This paper has already exceeded its limits, and must come

to a close. The leading influences, geographical, economical, legislative, which can affect the future commercial development of Boston have been passed in superficial review. The end throughout has been to attain some result in accordance with the recognized laws of trade. Each objection that has suggested itself has been met, in spirit at least, fairly and honestly. The end proposed was a simple one,— none other than to inquire whether any channel did really exist through which the waters of trade might flow easily and naturally down hill to Boston. An evident defect has been suggested in many former schemes, in that they began by inversion; the channels were opened without regard to inclines, or the facilities supplied without regard to demand. The proposition was to inquire how Boston could be made, as an outlet or inlet for some existing demand of trade, as cheap and more convenient, or as convenient and cheaper, than any other geographical point. It is for the community to consider, and for the future to decide, whether a practical way to this end does exist. Some sanguine spirits may maintain that it would exist, were every advantage utilized, a system employed, and every unnecessary weight thrown off. He, however, is a bold man who will maintain that the longed-for way lies through disorganized transportation, ignorant legislation, and oppressive taxes. What is now asked for is discussion. Is the question here raised really one of a foregone conclusion? is the commercial decadence now so apparent also hopeless? It is for others finally to decide this question; the sole object of the present paper is to show that it is a question with at least two sides. Others really competent to decide it may decide it finally in the affirmative, as here the decision has been in the negative. It should at least, however, be discussed and properly examined, and a system and policy introduced. The days of patriotic subscriptions, of blind struggling, of abortive schemes, and of efforts by inversion, should be at an end in Boston. The road to success does not lie that way. Whatever is attempted, let it be attempted knowingly and systematically, in obedience to some natural law, and in response to some acknowledged demand.

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